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SCIENTIFIC INTELLIGENCE COMMITTEE

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D. H. C.
R. N. M.

14 February 1967

MEMORANDUM FOR: Director, National Estimates

SUBJECT: Table II-B-4, NIPP 67 (Soviet Interceptor
and Fighter Aircraft Estimated
Characteristic and Performance)

1. Per your request, the SIC has reviewed the subject table and has approved it with several modifications. For this exercise, a special meeting between SICELSUBCOM, the SIC Aircraft Working Group, and the AA Working Group of GMAIC was convened and appropriate performances were agreed upon. [REDACTED] of your office, was present and provided valuable guidance.

25X1A

2. There are no reservations to this table.

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[REDACTED]
Executive Secretary

Distribution:

- 10 - ONE
- 1 - each SIC Member
- 1 - GMAIC
- 1 - SICELSUBCOM
- 1 - AWG

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S-E-C-R-E-T

TABLE IIB 4

SOVIET INTERCEPTOR AND FIGHTER AIRCRAFT
ESTIMATED CHARACTERISTICS AND PERFORMANCE

Model	YOC	Maximum Speeds (Knots) ^{1/*}			Combat Ceiling (Feet) 1/2 ¹	Combat Radius (Feet) 1/2 ¹	
		Sea Level	30,000 Feet	50,000 Feet		W/O Int. Fuel	With Int. Fuel
<u>Old Models</u>							
Fresco A and B (MIG-17)	1953	605	550	530	53,400	300	510
Fresco C (MIG-17)	1954	620	560	550	54,500	270	510
Fresco D (MIG-17)	1955	620	560	550	54,500	270	510
Fresco E (MIG-17)	1954	605	550	530	53,400	300	510
Flashlight (YAK-25)	1955	610	540	---	49,400	500	575
Farmer A (MIG-19)	1955	650	755	640	54,500	300	500
Farmer B (MIG-19)	1957	650	755	640	54,500	300	500
Farmer C (MIG-19)	1957	650	755	640	54,500	300	500
Farmer D (MIG-19)	1957	650	755	640	54,500	300	510
Farmer E (MIG-19)	1959	650	745	635	54,900	250	520
<u>Current Models</u>							
Fitter (SU-7) ^{2/}	1959	660	1,205	1,205	57,600	440	580
Fishpot (SU-9)	1959	660	1,205	1,205	58,000 ^{2/}	400	510
Fishbed C/E (MIG-21) ^{2/}	1960-1961	595	1,050	1,150	59,500 ^{2/}	360	450
Fishbed D (MIG-21) ^{2/}	1962	595	1,050	1,150	61,500 ^{2/}	280	470
Fishbed F (MIG-21) ^{2/}	1965	595	1,050	1,260	62,600 ^{2/}	400	480
Firebar (Yak-26)	1964	515	1,100	1,050	54,000	550	<u>510</u>
<u>Future Models</u>							
Fiddler	1966-1967	540	1,100	1,030	52,700	700	1,000
Improved All-Weather Interceptor A. ^{2/}	1968	660	690	About 1,000	70,000	510	---
Improved All-Weather Interceptor B. ^{2/}	1969-1970	500	915	About 1,700	70-75,000	Up to 500	---
Advanced All-Weather Interceptor	1972-1974	500	Mach 3 Cruise		75-80,000	700	---
Advanced Long-Range All-Weather Interceptor	1974-1976	500	Mach 3 Cruise		75-80,000	1,000	---

* See footnotes on following page.

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All Weather Capa- bility	Radar Range Search/ Track (n.m.)	Main Armament			Maximum Effective Attack Range (n.m.)		Attack Capa- bility
		Guns	FFAR ⁴ / mm	Air-to-Air Missiles	Guns Rockets	AAM's ^a / mm	
No; day	--	2x23 mm 1x37 mm	32x57 mm	--	0.5	--	Tail
No; day	1 ⁵ / ₅	2x23 mm 1x37 mm	48x57 mm	--	0.5	--	Tail
Yes	6/2 ⁸ / ₅	3x23 mm	48x57 mm	6/	0.5	6/	Tail
Yes	6/2 ⁶ / ₅	3x23 mm	48x57 mm	6/	0.5	6/	Tail
Yes	12/8	2x37 mm	---	--	0.5	--	Tail
No; Day	-/1 ⁵ / ₅	2x23 mm 1x37 mm	32x57 mm 64x57 mm	or --	0.5	--	Tail
Yes	6/2	2x30 mm	---	--	0.5	--	Tail
No; Clear Air Mass	1 ⁵ / ₅	2x30 mm	16x57 mm 64x57 mm	or --	0.5	--	Tail
No; Clear Air Mass	1 ⁵ / ₅	3x30 mm	16x57 mm 64x57 mm	or --	0.5	--	Tail
Yes	6/3	--	---	4xAA-1b	---	2-3	Tail
No; Clear Air Mass	-/4 ⁵ / ₅	2x30 mm	32x57 mm	2xAA-2b	0.5	5-6 ⁸ / ₅	Tail
Yes	11/5	--	---	4xAA-1c	---	3-4	Tail
No; Clear Air Mass	4 ⁵ / ₅	1x30 mm	---	2xAA-2b	---	5-6 ⁸ / ₅	Tail
Yes	11/8	--	---	2xAA-2b or 2xAA-1b	---	5-6 3-4	Tail
Yes	11/8	--	---	2xAA-2b or 2xAA-1b	---	5-6 3-4	Tail
Yes	22/16	--	---	2xAA-3a/3b	---	10-12	Tail
Yes	32/24	--	---	4xAA-5a/5b	---	10-16	360°
Yes	22/16	--	---	2xAA-2-1 ^d / ₅	---	10-12	Tail-Nose
Yes	40/30	--	---	2 or 4 AA-Z-1(?)	---	10-12	360°
Yes	About 60/45	--	---	4xAA-Z-1(?)	---	At Least	360°
Yes	About 60-45	--	---	4xAA-Z-1	---	At Least	360°

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TABLE IIB 4

SOVIET INTERCEPTOR AND FIGHTER AIRCRAFT
ESTIMATED CHARACTERISTICS AND PERFORMANCE

FOOTNOTES

- 1/ Maximum speeds, combat ceilings and combat radii have been calculated independently and cannot all be achieved on the same flight profile.
- 2/ Without external fuel tanks.
- 3/ These combat radii are calculated on the basis of subsonic cruise to and from the combat area and five minutes maximum speed in the combat area, except for the Advanced All-Weather Interceptor and the Advanced Long-Range All-Weather Interceptor.
- 4/ Folding Fin Air Rockets.
- 5/ These figures are for radars that give target ranges only. The pilot must acquire the target visually and aim by optical gun sight. The range-only radar tells the pilot when he can fire.
- 6/ Some of these aircraft assigned to Tactical Aviation and a few in PVO Strany are equipped to carry four AA-1 air-to-air missiles; in these cases the search/track range is 6/3 nm and the maximum effective attack range is 3nm.
- 7/ There are a few Fitters and no Fishbeds in PVO Strany; both aircraft, however, are deployed in large numbers in Tactical Aviation units. These models are included in the table because of their capabilities as interceptors.
- 8/ These aircraft have infrared missiles which do not require radar guidance; therefore visual attack can be made at the effective range of the missile.
- 9/ These aircraft have the capability to make intercepts, with limited effectiveness, in dynamic climb against subsonic targets at altitudes on the order of 70,000 feet when under close GCI direction.
 - a/ Assumes an optimum operational attack situation for each weapons system involved. These are not necessarily the same assumptions as given in Footnote 5 of Table II-B-6 for the missile. The ranges consequently are often different.
 - b/ There is evidence that some Firebar aircraft may carry external fuel.
 - c/ This aircraft may also exist in a tactical fighter version, the TF-68 shown in Section III. In Table II-B 4, it is considered in the interceptor role.

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TABLE IIB 4 (cont'd.)

- d/ There is no evidence indication this missile carried.
It may be a new missile or it could be the AA-3A/B or the AA-4.
- e/ Designed for cruise at Mach 2.3 to 2.5.

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